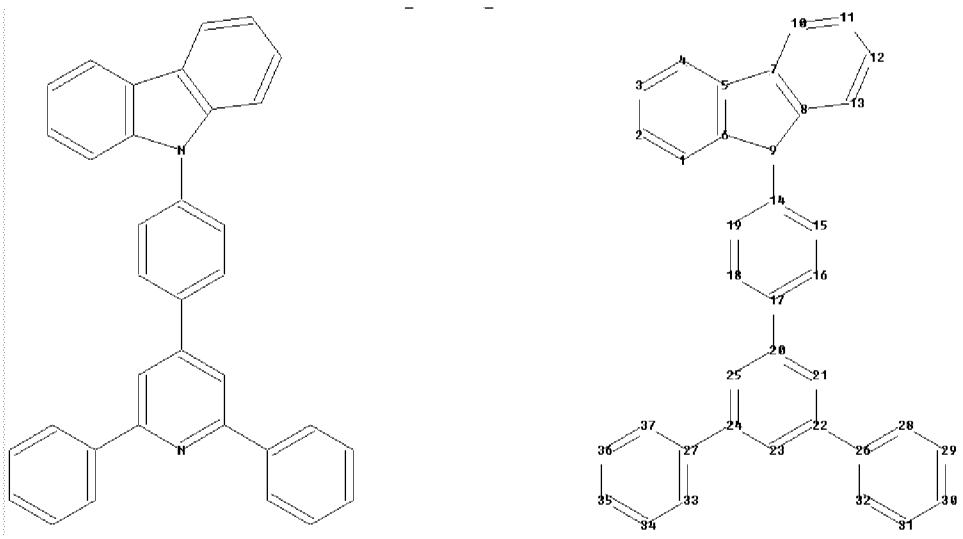
10/529,238 Search History (2008.05.29) /BAC/

=> file reg

FILE 'REGISTRY' ENTERED AT 12:28:41 ON 29 MAY 2008



ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32 33 34 35 36 37
chain bonds :
9-14 17-20 22-26 24-27
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13
14-15 14-19 15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25 26-28 26-32
27-33 27-37 28-29 29-30 30-31 31-32 33-34 34-35 35-36 36-37
exact/norm bonds :
5-7 6-9 8-9 9-14
exact bonds :
17-20 22-26 24-27
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13 14-15 14-19
15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25 26-28 26-32 27-33 27-37
28-29 29-30 30-31 31-32 33-34 34-35 35-36 36-37

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom
21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom
32:Atom
33:Atom 34:Atom 35:Atom 36:Atom 37:Atom

L1 STRUCTURE UPLOADED

=> s l1 sss sam

L2 0 SEA SSS SAM L1

=> s l1 sss ful

L3 4 SEA SSS FUL L1

=> file hcaplus uspatfull

FILE 'HCAPLUS' ENTERED AT 12:30:04 ON 29 MAY 2008

FILE 'USPATFULL' ENTERED AT 12:30:04 ON 29 MAY 2008

=> s l3
FILE 'HCAPLUS'
L4 7 L3

FILE 'USPATFULL'
L5 6 L3

TOTAL FOR ALL FILES
L6 13 L3

L4 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:558335 HCAPLUS <<LOGINID::20080529>>
DN 145:53073
TI Organic compound, charge-transporting material, and organic electroluminescent element
IN Yabe, Masayoshi; Sato, Hideki; Takeuchi, Masako; Fugono, Masayo; Iida, Koichiro
PA Pioneer Corporation, Japan; Mitsubishi Chemical Corporation
SO PCT Int. Appl., 143 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006062062	A1	20060615	WO 2005-JP22298	20051205

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM
JP 2006188493 A 20060720 JP 2005-350623 20051205
EP 1820801 A1 20070822 EP 2005-811601 20051205
R: DE
CN 101076528 A 20071121 CN 2005-80042418 20051205
KR 2007085974 A 20070827 KR 2007-713039 20070608
PRAI JP 2004-358592 A 20041210
WO 2005-JP22298 W 20051205
OS MARPAT 145:53073
AB An organic compound and a charge-transporting material which each combines excellent hole-transporting properties with excellent electron-transporting properties and has excellent long-term resistance to elec. oxidation/reduction and a high triplet excitation level; and an organic electroluminescent element employing the organic compound The element has a high luminescent efficiency, high operation stability, and a long life. The organic compound has per mol. two or more partial structures represented by the following formula I, where Cz is carbazolyl, Z is a direct bond or any connecting group. The nitrogen atoms present in each mol. are not conjugated with each other, except for the nitrogen atoms present in the same ring B1. Only one pyridine ring is present per mol. The two or more Q's present per mol. each represents a direct bond connected to G in the formula II, where ring B1 is a 6-membered aromatic heterocycle having n nitrogen atom(s) as a heteroatom, provided that n is an integer of 1-3. When G is connected to Q, it is a direct bond or any connecting group which each is connected to Q. When G is not connected to Q, it is an aromatic hydrocarbon group. G is bonded to any of the carbon atoms located in the ortho and para positions to a nitrogen atom of the ring B1. Symbol m is an integer of 3-5.
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 890148-75-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(organic compound, charge-transporting material, and organic electroluminescent element)

L4 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:1130983 HCAPLUS <<LOGINID::20080529>>
DN 143:376246
TI Organic electroluminescent device having two electroluminescent layers through electron barrier layer
IN Iwakuma, Toshihiro; Matsuura, Masahide; Yamamoto, Hiroshi; Kawamura, Hisayuki; Hosokawa, Chishio
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
---------- ---- -------- ---------- --------
PI WO 2005099313 A1 20051020 WO 2005-JP5397 20050324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,

SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CN 1906976 A 20070131 CN 2005-80001435 20050324
EP 1753268 A1 20070214 EP 2005-721411 20050324
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
US 20070188083 A1 20070816 US 2006-567903 20060824
PRAI JP 2004-109651 A 20040402
WO 2005-JP5397 W 20050324

AB The invention relates to an organic electroluminescent device comprising a pair of electrodes and at least two organic luminescent layers held between the electrodes, wherein the two organic luminescent layers are disposed through an electron barrier layer, and the two organic luminescent layers are both made of electron transport light-emitting material.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 2085-33-8, Alq3 7429-90-5, Aluminum, uses 7439-93-2, Lithium, uses 123847-85-8 139092-78-7 146162-54-1 150405-69-9, TAZ 172285-83-5 209980-53-0 279672-58-1 364765-18-4 607739-95-7 607740-04-5 665005-15-2 800395-01-1
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device having two electroluminescent layers through electron barrier layer)

L4 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:634243 HCAPLUS <<LOGINID::20080529>>
DN 141:182077
TI Organic electroluminescence device showing high emission efficiency and extended service life for full color display
IN Arakane, Takashi; Iwakuma, Toshihiro; Hosokawa, Chishio
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004066685	A1	20040805	WO 2004-JP236	20040115
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
EP 1589789	A1	20051026	EP 2004-702427	20040115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1762182	A	20060419	CN 2004-80007699	20040115
US 20060180806	A1	20060817	US 2005-542629	20050718
PRAI JP 2003-16505	A	20030124		
WO 2004-JP236	W	20040115		

AB An organic electroluminescence device has at least a hole-transport layer and a light-emitting layer made of a phosphorescent light-emitting material

and a host material between a cathode and an anode. The triplet energy of the hole-transport material of the hole-transport layer is 2.52-3.70 eV. The hole mobility is 10-6 cm2/Vs at an elec. field strength of 0.1-0.6 MV/cm. Thus an organic electroluminescence device using phosphorescence emission, exhibiting a high emission efficiency, and having a long life is provided.

IT 607740-04-5 607740-05-6 607740-09-0
RL: DEV (Device component use); USES (Uses)
(host material; organic electroluminescence device showing high emission efficiency and extended service life)

L4 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:473163 HCAPLUS <<LOGINID::20080529>>
DN 141:30891
TI Organic electroluminescent device and display
IN Fukuda, Mitsuhiro; Kita, Hiroshi; Yamada, Taketoshi
PA Konica Minolta Holdings, Inc., Japan
SO U.S. Pat. Appl. Publ., 37 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040110031	A1	20040610	US 2003-718360	20031120
US 7270893	B2	20070918		
JP 2004178895	A	20040624	JP 2002-342192	20021126

PRAI JP 2002-342192 A 20021126
OS MARPAT 141:30891
AB Disclosed is an organic electroluminescent device comprising a component layer including a light emission layer, wherein the light emission layer contains a phosphorescent compound, and the component layer contains a compound represented by A-(Z)n, [A = (un)substituted aromatic ring residue; n = 3-6 integer; and Z = monovalent organic group represented by -L-Cz, [L = chemical pond and divalent linking group; Cz = (un)substituted carbazole residue], provided that A-(Z)n does not have an n-fold axis of symmetry].
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 699119-36-3P 699119-40-9P 699119-44-3P 699119-49-8P
699119-54-5P 699119-58-9P 699119-61-4P 699119-65-8P 699119-69-2P
699119-73-8P 699119-77-2P 699119-81-8P 699119-86-3P 699119-96-5P
699120-00-8P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(organic electroluminescent device and display having light emitting layer containing phosphorescent substance)

L4 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:334022 HCAPLUS <<LOGINID::20080529>>
DN 140:365380
TI Organic electroluminescent device
IN Arakane, Takashi; Iwakuma, Toshihiro; Hosokawa, Chishio
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DT Patent

LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004034751	A1	20040422	WO 2003-JP12598	20031001
W: CN, JP, KR, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1551206	A1	20050706	EP 2003-751304	20031001
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1703937	A	20051130	CN 2003-80101284	20031001
US 20060257684	A1	20061116	US 2005-529238	20050325
PRAI JP 2002-296024	A	20021009		
WO 2003-JP12598	W	20031001		

AB An organic electroluminescent device having, between a cathode and an anode, a light-emitting layer which is made of at least a phosphorescent material and a host material, has an electron injection layer arranged between the light-emitting layer and the cathode and having a junction with the light-emitting layer. The light-emitting layer has electron transport properties and the ionization potential of the host material is 5.9 eV or less. The energy gap of an electron transport material in the electron injection layer is smaller than that of the host material in the light-emitting layer, or the triplet energy of the electron transport material in the electron injection layer is smaller than that of the host material in the light-emitting layer. The organic electroluminescent device uses light emission of phosphorescence and has high luminous efficiency.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 607740-04-5 607740-09-0
RL: DEV (Device component use); USES (Uses)
(electroluminescent layer host; organic electroluminescent device with phosphorescent guest in electroluminescent layer)

L4 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:777920 HCAPLUS <<LOGINID::20080529>>
DN 139:299015
TI Carbazole derivative for organic electroluminescent devices and organic electroluminescent devices
IN Iwakuma, Toshihiro; Yamamoto, Hiroshi; Hironaka, Yoshio; Ikeda, Hidetsugu; Hosokawa, Chishio; Tomita, Seiji; Arakane, Takashi
PA Idemitsu Kosan Co., Ltd., Japan
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003080760	A1	20031002	WO 2003-JP3329	20030319
W: CN, IN, JP, KR				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
EP 1489155	A1	20041222	EP 2003-712758	20030319
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, HU, SK				

CN 1701111 A 20051123 CN 2003-806689 20030319
US 20040086745 A1 20040506 US 2003-393988 20030324
IN 2004CN02074 A 20060303 IN 2004-CN2074 20040917
US 20050249976 A1 20051110 US 2005-150342 20050613
PRAI JP 2002-81234 A 20020322
JP 2002-299810 A 20021015
WO 2003-JP3329 W 20030319
US 2003-393988 B1 20030324
AB The invention refers to a material for blue electroluminescent devices having the structure (Cz)nA or Cz(A)n [Cz = (un)substituted arylcarbazolyl or carbazoylyl alkylene; A = MpLqM'r; M,M' = (un)substituted C2-40 heteroarom. rings; L = single bond, (un)substituted C6-30 aryl or arylene, C5-30 cycloalkylene, photorefractive C2-30 heteroarom.; p,r = 0 - 2; q = 1 - 2; p + r > 1].
RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 607739-86-6P 607739-88-8P 607739-89-9P 607739-91-3P 607739-95-7P 607739-97-9P 607739-99-1P 607740-01-2P 607740-03-4P 607740-04-5P 607740-05-6P 607740-06-7P 607740-09-0P 607740-11-4P 607740-13-6P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(carbazole derivative for organic electroluminescent devices and organic electroluminescent devices)

L4 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:405859 HCAPLUS <<LOGINID::20080529>>
DN 133:51178
TI Amino compound, manufacture of the compound, and its use in electrophotographic photoconductor and electroluminescent device
IN Fujino, Yasumitsu; Ueda, Hideaki; Furukawa, Keiichi
PA Minolta Camera Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
---------- ---- -------- ---------- --------
PI JP 2000169448 A 20000620 JP 1998-346820 19981207
PRAI JP 1998-346820 19981207
OS MARPAT 133:51178
AB The amino compound is represented as A(Ar2NR1R2)n [I; A = pyridine-based group Q1-Q3; Ar1 = (substituted) arylene; Ar2, Ar3 = (substituted) aryl; n = 1-3; R1, R2 = alkyl, aralkyl, (substituted) aryl, (substituted) aromatic heterocycle; R1 and R2 may form a ring]. The compound is manufactured by reaction of A(Ar1X)n (A, Ar1, and n are the same as I; X = halogen) and HNR1R2 (R1, R2 are the same as I). Alternatively, the compound is manufactured by reacting XAr5COH [Ar5 = (substituted) arylene; X = halogen] and Ar8COMe [Ar8 = (substituted) aryl], heating the resulting pyrylium salt in aqueous NH3 or ammonium salt solution, and reacting the resulting 2,4,6-triarylpyridine halide and HNR1R2. Similar processes for preparation of the compound are also claimed. The compound is used in an electroluminescent device and used as a pos. hole-transporting agent in an electrophotog. photoconductor.
IT 276246-34-5 276246-35-6 276246-36-7 276246-37-8 276246-38-9 276246-39-0 276246-40-3 276246-41-4 276246-42-5

276246-43-6 276246-44-7 276246-45-8 276246-46-9 276246-47-0
276246-48-1 276246-49-2 276246-50-5 276246-51-6 276246-52-7
276246-53-8 276246-54-9 276247-62-2
RL: DEV (Device component use); USES (Uses)
(amino compound for electroluminescent device and pos. hole-transporting agent in electrophotog. photoconductor)

L5 ANSWER 1 OF 6 USPATFULL on STN
AN 2007:215131 USPATFULL <<LOGINID::20080529>>
TI Organic electroluminescence element having two electroluminescent layers through electron barrier layer
IN Iwakuma, Toshihiro, Chiba, JAPAN
Matsuura, Masahide, Chiba, JAPAN
Yamamoto, Hiroshi, Chiba, JAPAN
Kawamura, Hisayuki, Chiba, JAPAN
Hosokawa, Chishio, Chiba, JAPAN
PA Idemitsu Kosan Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)
PI US 2007188083 A1 20070816
AI US 2005-567903 A1 20050324 (10)
WO 2005-JP5397 20050324
20060824 PCT 371 date
PRAI JP 2004-109651 20040402
DT Utility
FS APPLICATION
LREP OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314, US
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1571
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An organic electroluminescent device including a pair of electrodes, and at least two organic emitting layers held between the pair of electrodes, (1) two organic emitting layers being arranged with an electron barrier layer interposed therebetween, (2) the two organic emitting layers both including an electron-transporting emitting material.

L5 ANSWER 2 OF 6 USPATFULL on STN
AN 2006:301327 USPATFULL <<LOGINID::20080529>>
TI Organic electroluminescent device
IN Arakane, Takashi, Chiba, JAPAN
Iwakuma, Toshihiro, Chiba, JAPAN
Hosokawa, Chishio, Chiba, JAPAN
PA Idemitsu Kosan Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)
PI US 2006257684 A1 20061116
AI US 2003-529238 A1 20031001 (10)
WO 2003-JP12598 20031001
20050325 PCT 371 date
PRAI JP 2002-296024 20021009
DT Utility
FS APPLICATION
LREP PARKHURST & WENDEL, L.L.P., 1421 PRINCE STREET, SUITE 210, ALEXANDRIA, VA, 22314-2805, US

CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2215
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An organic electroluminescence device comprising a cathode, an anode and at least one layer comprising a phosphorescent light emitting material and a host material which is sandwiched between the cathode and the anode and further comprising an electron injecting layer which is adhered to the light emitting layer and is capable of transporting electrons, wherein an ionization potential of the host material is 5.9 eV or smaller, and wherein an energy gap of the electron transporting material in the electron injecting layer is smaller than that of the host material in the light emitting layer or wherein a triplet energy of the electron transporting material in the electron injecting layer is smaller than that of the host material in the light emitting layer. It emits phosphorescent light with enhanced efficiency because it comprises a light emitting layer and an electron injecting layer both satisfying specified condition and employs a light emitting layer capable of electron transporting.

L5 ANSWER 3 OF 6 USPATFULL on STN
AN 2006:212656 USPATFULL <<LOGINID::20080529>>
TI Organic electroluminescence device
IN Arakane, Takashi, Chiba, JAPAN
Iwakuma, Toshihiro, Chiba, JAPAN
Hosokawa, Chishio, Chiba, JAPAN
PI US 2006180806 A1 20060817
AI US 2004-542629 A1 20040115 (10)
WO 2004-JP236 20040115
20050718 PCT 371 date
PRAI JP 2003-16505 20030124
DT Utility
FS APPLICATION
LREP STEPTOE & JOHNSON LLP, 1330 CONNECTICUT AVENUE, N.W., WASHINGTON, DC, 20036, US
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1254
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An organic electroluminescence device comprising a cathode, an anode and, sandwiched between the cathode and the anode, at least a hole transporting layer and a light emitting layer containing a phosphorescent light emitting material and a host material, wherein the hole transporting layer comprises a hole transporting material having a triplet energy of 2.52 to 3.70 eV and a hole mobility of 10.sup.-6 cm.sup.2/Vs or higher as measured at a field intensity of 0.1 to 0.6 MV/cm. Thus, the organic electroluminescence device utilizing a phosphorescent light emission according to the present invention can exhibit a favorable current efficiency and a long lifetime.

L5 ANSWER 4 OF 6 USPATFULL on STN
AN 2005:286712 USPATFULL <<LOGINID::20080529>>
TI Material for organic electroluminescence devices and organic electroluminescence device using the material

IN Iwakuma, Toshihiro, Sodegaura-shi, JAPAN
Yamamoto, Hiroshi, Sodegaura-shi, JAPAN
Hironaka, Yoshio, Sodegaura-shi, JAPAN
Ikeda, Hidetsugu, Sodegaura-shi, JAPAN
Hosokawa, Chishio, Sodegaura-shi, JAPAN
Tomita, Seiji, Sodegaura-shi, JAPAN
Arakane, Takashi, Sodegaura-shi, JAPAN
PA Idemitsu Kosan Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)
PI US 2005249976 A1 20051110
AI US 2005-150342 A1 20050613 (11)
RLI Continuation of Ser. No. US 2003-393988, filed on 24 Mar 2003, ABANDONED
PRAI JP 2002-81234 20020322
JP 2002-299810 20021015
DT Utility
FS APPLICATION
LREP OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314, US
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1522
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A material for organic electroluminescence devices comprising a compound in which a heterocyclic group having nitrogen is bonded to an arylcarbazolyl group or a carbazolylalkylene group and an organic electroluminescence device comprising an anode, a cathode and an organic thin film layer comprising at least one layer and disposed between the anode and the cathode, wherein at least one layer in the organic thin film layer comprises the material for organic electroluminescence devices described above. The material can provide an organic electro-luminescence device emitting bluish light with a high purity of color. The organic electroluminescence device uses the material.

L5 ANSWER 5 OF 6 USPATFULL on STN
AN 2004:144367 USPATFULL <<LOGINID::20080529>>
TI Organic electroluminescent element and display
IN Fukuda, Mitsuhiro, Tokyo, JAPAN
Kita, Hiroshi, Tokyo, JAPAN
Yamada, Taketoshi, Saitama-shi, JAPAN
PI US 2004110031 A1 20040610
US 7270893 B2 20070918
AI US 2003-718360 A1 20031120 (10)
PRAI JP 2002-342192 20021126
DT Utility
FS APPLICATION
LREP CANTOR COLBURN LLP, 55 Griffin Road South, Bloomfield, CT, 06002
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 1536
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed is an organic electroluminescent element comprising a component layer including a light emission layer, wherein the light emission layer contains a phosphorescent compound, and the component layer contains a compound represented by the following formula 1,

A.paren open-st.(Z).sub.n formula 1

wherein A represents a substituted or unsubstituted aromatic ring residue; n is a natural number of from 3 to 6; and Z represents a monovalent organic group represented by the following formula 2, provided that formula 1 does not have an n-fold axis of symmetry,

-L-Cz Formula 2

L5 ANSWER 6 OF 6 USPATFULL on STN
AN 2004:113906 USPATFULL <<LOGINID::20080529>>
TI Material for organic electroluminescence devices and organic electroluminescence device using the material
IN Iwakuma, Toshihiro, Chiba, JAPAN
Yamamoto, Hiroshi, Chiba, JAPAN
Hironaka, Yoshio, Chiba, JAPAN
Ikeda, Hidetsugu, Chiba, JAPAN
Hosokawa, Chishio, Chiba, JAPAN
Tomita, Seiji, Chiba, JAPAN
Arakane, Takashi, Chiba, JAPAN
PA Idemitsu Kosan Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)
PI US 2004086745 A1 20040506
AI US 2003-393988 A1 20030324 (10)
PRAI JP 2002-81234 20020322
JP 2002-299810 20021015
DT Utility
FS APPLICATION
LREP OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1599
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A material for organic electroluminescence devices comprising a compound in which a heterocyclic group having nitrogen is bonded to an arylcarbazolyl group or a carbazolylalkylene group and an organic electroluminescence device comprising an anode, a cathode and an organic thin film layer comprising at least one layer and disposed between the anode and the cathode, wherein at least one layer in the organic thin film layer comprises the material for organic electroluminescence devices described above. The material can provide an organic electroluminescence device emitting bluish light with a high purity of color. The organic electroluminescence device uses the material.